

There was an abundance of sunshine, though the total amount and the percentage of the possible averaged slightly less than in June. At the regular Weather Bureau stations the amounts of sunshine varied from 376 hours at Atlantic City to 253 hours at Mount Weather, Va., or, expressed in terms of percentage of the possible sunshine, from 83 to 56.

The average number of rainy days was 9, of clear days 16, partly cloudy days 12, and cloudy days 3.

THUNDERSTORM OF JULY 30, 1913, AT WASHINGTON, D. C.

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On the afternoon of July 30, 1913, between 3 and 4 o'clock, there occurred one of the most severe thunderstorms that ever visited the city of Washington. While the extent of territory affected by the storm was comparatively small it presented some unusual phenomena in the matter of high winds, heavy rains, and destruction to property.

Up to the time of the occurrence of the storm the atmospheric pressure presented no marked variation from the usual conditions. The barometer was steadily falling as the result of the diurnal change and stood at about 29.9 inches when the storm broke. The day had opened clear with temperature about 76°, from which point it rapidly climbed to 94° by noon and to 97° at 2 p. m., with prospects of going even higher had not the gathering clouds interfered with its further upward march. Light variable winds, mostly from the north or west, had prevailed up to about 3 p. m., when the direction changed to north and then to northeast, the velocity increasing rapidly from 4 or 5 miles per hour to a gale of unusual force.

Clouds began to gather early in the afternoon and by 2.30 they had obscured the sun, at which time the first thunder was heard. The storm rapidly gathered force, and angry, dust-colored lower clouds formed in the north and northeast, moving rapidly southward, while the ragged edges of the more elevated clouds indicated the probability of still higher winds to follow.

Light rain began at 3 p. m., becoming torrential about 3.10 p. m., at which time the wind shifted from north to northeast, and increased greatly in velocity. At the same time heavy hail began, the rattling of which, with the brilliant flashes of lightning, the terrific thunder, the violence of the wind, the flying debris from houses and trees, and the near approach to total darkness, probably produced a more terrifying condition than was ever before experienced in the District.

At the Weather Bureau office the wind attained a velocity of 68 miles from the north and northeast from about 3.10 to 3.20 p. m., with occasional gusts that probably exceeded 70 miles, the highest velocity ever recorded at that point.

With the beginning of the rain and the increased velocity of the wind the usual rise in pressure that accompanies thunderstorms occurred, the barograph responding promptly to the increased pressure, and showing a sudden rise of nearly two-tenths of an inch. At the same time there was a rapid fall in the temperature, the change from 3 to 3.15 p. m., 15 minutes, amounting to slightly more than 30°.

The severest portion of the storm lasted about 15 minutes, during which time the fall of rain amounted to more than an inch and a half, and damage from wind and hail

in the District alone probably amounted to several hundred thousand dollars.

The most significant feature of the storm was the apparent shortness of its path considering the length of the period during which it raged with such severity. From reports from postmasters and others in the immediate vicinity of Washington it seems that the storm suddenly developed its severe character near the northeastern boundary of the District, only light winds and but little rain as a rule occurring in the adjoining portions of Maryland.

The severest portion of the storm appears to have traveled in a course slightly west of south across the central part of the city, and was dissipated rapidly on reaching the hills on the Virginia side of the Potomac.

In its course through the city severe damage was wrought to many different interests. Houses were unroofed and flooded, windows on the north sides of buildings were shattered by the hail, many shade trees were broken sharply off or uprooted, while thousands of others had many of their branches torn off or badly broken. Several buildings collapsed from the force of the storm, the falling of one at Seventh and L Streets NW., causing the death of two persons and the severe injury of several others. Numerous narrow escapes from death were reported, and many persons were injured in the streets or at their homes by flying debris of various kinds.

On the river the wind was even more severe than in the city, but sufficient warning of the approach of the storm had enabled those interested to prepare for it. Some damage was done, however, to the smaller craft, and to property along the river front, the flooring of the Aqueduct Bridge being partly torn up and several persons narrowly escaping death from the flying boards. Hundreds of telephones were damaged, poles and wires were broken down, and street-car traffic was delayed.

Much damage occurred in the parks and to the shade trees throughout the city, many magnificent and noted trees being uprooted or broken off, or so badly injured as to require their removal. Outside the limits of the District the rainfall, wind, and other evidences of the storm were light, no rain falling at nearby points to the northwest and southwest, and but little beyond the first few miles on the Virginia side of the Potomac, while the severe wind was likewise confined largely within the limits of the District.

From reports received it appears that the storm began near Laurel, Md., at about 2.30 p. m., with moderate winds from the northwest, and accompanied by heavy thunder; it increased in intensity as it approached the District line and at Takoma Park rain began at 3 p. m. and continued until 4.15 p. m., accompanied by hail heavy enough to crack windows and shred leaves of vegetables and plants. At College Park, Md., rain began at 3 p. m. and ended at 5 p. m.; total fall, 0.66 inch. At Rockville, Md., it began at 2.30 p. m. and ended at 5 p. m., with 0.90 inch rain, light hail being reported east of the town. The wind was heavy from the north, but did very little damage. A trace of rain fell at Poolesville, Md., at 3 p. m., with wind from the east, but without damage. The wind was brisk southeast at Germantown, Md., but there was no evidence of the storm to the westward in Virginia. To the southeastward of the District line there was little evidence of the storm, and it appears to have soon spent its force after crossing the Potomac, as only 0.05 inch of rain, and light wind were reported from Fairfax, and there was no rain or wind at Manassas and other nearby points in Virginia.